IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No. 15970US01

In the Application of:	

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    Martin Morris

U.S. Serial No.:   09/945,200

Filed: August 30, 2001

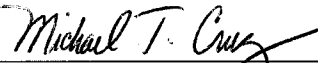For: METHOD AND APPARATUS FOR RANGE EXTENSION OF LOW-POWER WIRELESS COMMUNICATION LINKS

Examiner: Kevin Michael Burd

Group Art Unit: 2631

Confirmation No.:   4498

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

    This paper is a timely filed Reply Brief in response to the Examiner's Answer mailed October 5, 2006. The deadline for filing a Reply Brief is December 5, 2006.

REPLY TO EXAMINER'S ANSWER

Appellant respectfully requests that the Board fully consider the Appeal Brief filed on July 3, 2006 and the Amended Appeal Brief filed on August 24, 2006 in addition to the present Reply Brief.

Appellant respectfully challenges the Examiner's allegation and scope of the application's allegedly disclosed prior art. Appellant respectfully draws the attention of the Board to the fact that the allegedly disclosed prior art is not in the Background Section of the specification.

The application's allegedly disclosed prior art might be the following: "According to the Bluetooth specification, DIACs are specially chosen to tolerate a higher bit error rate than a body of a message". Specification at paragraph [1027].

In view of dedicated inquiry access codes (DIACs) that are specially chosen to tolerate a higher bit error rate than a body of a message, Appellant concludes "that they can be detected beyond a range at which a Bluetooth transmission would normally be corrupted". Specification at paragraph [1027]. Appellant then further concludes that "[t]his is so that they can achieve their function of being detected by a receiver even before a clock synchronization is achieved between the transmitting and receiving devices". Specification at paragraph [1027].

The Examiner has assumed, without any evidentiary support, that above-reproduced quotations in their entirety are part of the application's allegedly disclosed prior art. However, it is not clear that the conclusions made by the Appellant are part of the phrase "[a]ccording to the Bluetooth specification" (as alleged in the application's allegedly disclosed prior art). Furthermore, the Examiner has not provided any evidence that Bluetooth specification, alluded to in the specification and incorporated by reference in its entirety in the specification at paragraph [1010], supports the Examiner's allegation that the conclusions ascertained by Appellant are, in fact, part of the Bluetooth specification which was incorporated by reference in its entirety in the specification at paragraph [1010].

Appellant respectfully submit that, without any evidence to the contrary provided by the Examiner, the conclusions made by Appellant in the detailed description of the specification should not be considered part of the Examiner's allegedly disclosed prior art and should not be used in supporting the obviousness rejections.

For at least the above reasons, it is respectfully submitted that obviousness rejections based, at least in part, on the Examiner's allegedly disclosed prior art should be reversed.

With respect to claim 1, Appellant respectfully submits that, although the present application states that a dedicated inquiry access code (DIAC) is described in the Bluetooth specification, the application's allegedly disclosed prior art does not suggest using the DIAC for any other purpose other than as a DIAC in the Bluetooth specification.

Thus, none of the documents cited by the Examiner teaches "wherein an access code portion ... is reserved to notify a second wireless communications device that the outgoing transmissions have an increased level of error-correcting coding" as set forth in claim 1.

As the name suggests, a dedicated inquiry access code (DIAC) is used during an initial inquiry process to discover other Bluetooth devices within range. As the specification at paragraph [1027] states, detection occurs "even before a clock synchronization is achieved between the transmitting and receiving devices" (e.g., even before a connection is formed).

Neither Haartsen, Ho nor a DIAC "[a]ccording to the Bluetooth specification" (as alleged in the application's allegedly disclosed prior art) teaches using a DIAC for any other purpose. Furthermore, the Examiner has provided no evidence that the Bluetooth specification teaches using a DIAC for any other purpose – after all, the application's allegedly disclosed prior art is "[a]ccording to the Bluetooth specification" (specification at paragraph [1027]), the Bluetooth specification being incorporated by reference in its entirety in the specification at paragraph [1001].

In fact, in discussing what one of ordinary skill in the art would do, surely it is highly pertinent that one of ordinary skill in the art would be inclined to use the DIAC "[a]ccording to the Bluetooth specification" (as alleged in the application's allegedly disclosed prior art) which was incorporated by reference in its entirety in the specification at paragraph [1001].

Appellant respectfully submits to the Board that standards such as the Bluetooth specification which are developed and approved by those skilled in the art should be strong indications of what one of ordinary skill in the art would do with a DIAC – which is not how the Examiner is alleging the use of the DIAC.

Ho describes a forward error correction (FEC) field 114 as part of a PHY Header 104. See, e.g., Ho at FIGS. 1A and 1B. Ho does not describe that the FEC field 114 is part of the access code field 102. See, e.g., Ho at FIGS. 1A and 1B.

Appellant respectfully submit that, in determining what one of ordinary skill in the art would do, it is significant, in view of Ho which is evidence of what one of ordinary skill in the art would do, that Ho uses the FEC field 114 as part of the PHY Header 104 and not the access code field 102. See, e.g., Ho at FIGS. 1A and 1B.

Neither Haartsen, Ho nor a DIAC "[a]ccording to the Bluetooth specification" (as alleged in the application's allegedly disclosed prior art) teaches using a DIAC (alleged to be the "access code portion") of the Bluetooth specification to "notify a second wireless communications device that the outgoing transmissions have an increased level of error-correcting coding" as set forth in claim 1.

Neither Haartsen, Ho nor a DIAC "[a]ccording to the Bluetooth specification" (as alleged in the application's allegedly disclosed prior art) teaches *reserving* an access code portion "to notify a second wireless communications device that the outgoing transmissions have an increased level of error-correcting coding" as set forth in claim 1.

In effect, the Examiner has alleged that one of ordinary skill in the art would take an FEC field of a PHY Header and toss it in an access code portion, specifically, a DIAC of a packet even though one of ordinary skill in the art would instead be inclined to use a DIAC according to the standard (i.e., the Bluetooth specification) and one of ordinary

skill in the art in view of Ho would instead be inclined to place the FEC field describing the PHY payload 106, 108 in the PHY header 104.

Appellant respectfully submits that one of ordinary skill in the art would not use an initial inquiry process using a DIAC to notify a wireless communications device that the outgoing transmissions have an _increased_ level of error-correcting coding since DIACs "[a]ccording to the Bluetooth specification" (as alleged in the application's allegedly disclosed prior art) are used during initial inquiry processes to discover Bluetooth devices within range before, for example, even a connection has been established.

As mentioned above, one of ordinary skill in the art would use a dedicated inquiry access code (DIAC), as the name suggests, during an initial inquiry process before, for example, a connection is even established to discover other Bluetooth devices. In contrast, claim 1 refers to a first transmission range being effectively _increased_ and refers to outgoing transmissions having an _increased_ level of error-correcting coding. Even in view of claim 1, one of ordinary skill in the art would not use a DIAC "[a]ccording to the Bluetooth specification" as alleged by the Examiner since DIACs "[a]ccording to the Bluetooth specification" are normally used for an initial inquiry process to discover Bluetooth devices within range before, for example, even a connection has been established.

For at least the above reasons, it is respectfully submitted that the rejection be reversed with respect to claim 1 and its rejected dependent claims (i.e., claims 2-6 and 8-11).

The same or similar arguments are also made with respect to the other independent claim sets that recite the same or similar elements.

For at least the above reasons, it is respectfully submitted that the rejection be reversed with respect to claims 12-15, 17-21 and 24-33.

With respect to claim 21, Appellant respectfully draws the attention of the Board to the following elements: "wherein the message is a data packet comprising an access code portion, a header portion and a payload portion, and wherein a dedicated inquiry access code portion is appended to a beginning portion of the access code portion".

Thus, according to claim 21, the message is a data packet that includes an access code portion. Then, a dedicated inquiry access code portion is APPENDED to a beginning portion of the access code portion. Ho illustrates an access code field 102, but does not illustrate appending a dedicated inquiry access code portion to a beginning portion of the access code portion.

As merely an illustration of a particular embodiment, Appellant respectfully draws the attention of the Board to FIG. 3A which illustrates an exemplary packet including an access code 310, a header 320 and a payload 330. Appellant further draws the attention of the Board to FIG. 3B which illustrates a dedicated inquiry access code 340 APPENDED to a beginning portion of access code 310.

It is respectfully submitted that none of the documents, individually or combined, cited by the Examiner teaches "wherein the message is a data packet comprising an access code portion, a header portion and a payload portion, and wherein a dedicated inquiry access code portion is APPENDED to a beginning portion of the access code portion" as set forth in claim 21 (emphasis added).

For at least the above reasons, it is respectfully submitted that the rejection be reversed with respect to claim 21 and its rejected dependent claims (i.e., claims 24-26).

CONCLUSION

For at least the foregoing reasons and in view of the Appeal Brief filed on July 3, 2006 and the Amended Appeal Brief filed on August 24, 2006, claims 1-6, 8-15, 17-21 and 24-33 are believed to be patentable over the alleged prior art of record.

Reversal of the Examiner's rejection of claims 1-6, 8-15, 17-21 and 24-33 and issuance of a patent on the application is therefore respectfully requested.

The Commissioner is hereby authorized to charge any additional fees, any fee deficiencies or to credit any overpayments to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Dated: <u>December 5, 2006</u>   Respectfully submitted,

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